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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,534	01/12/2006	Lukas Hacner	FR030077	1837

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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BRIARCLIFF MANOR, NY 10510

EXAMINER	
VU, JIMMY T	
ART UNIT	**PAPER NUMBER**
2821	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/564,534	HAENER ET AL.	
	Examiner	Art Unit	
	Jimmy T. Vu	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Boys (U.S. Patent 6,459,218 B2).

Regarding claim 1, Boys discloses a device for lighting at least one light emitting diode (LED) (405) (Figs. 4-6) to be supplied with predefined minimum forward voltage and maximum current, comprising:

voltage supply means (col. 6, lines 33-35) for supplying voltage to the light emitting diode,

a pulse generator (602) (Fig. 6) for generating a cyclic pulse signal having predefined on-times and off-times,

a switch (503) (Fig. 5, col. 7, lines 39-40) controlled by the pulse generator to be turned on during said on-times to short-circuit the light emitting diode and turned off during said off-times,

an inductive device (501) (Figs. 4-6, col. 6, line 59) for being charged when the switch (503) is turned on and for increasing the forward voltage over the light emitting diode when the switch is turned off.

Regarding claim 2, Boys discloses a device comprising a diode (510) before the light emitting diode to prevent the voltage over the light emitting diode from going down to zero (Figs. 5 and 6).

Regarding claim 3, Boys discloses a device wherein the inductive device (501) is a coil having an inductance defined by the number of light emitting diodes (405) (increasing/decreasing the number of diodes (405) would affect the current flowing through the inductor (501) [refer to the connection in Figs. 5 and 6]) and their maximum current and voltage requirements as well as the available frequency of the pulse generator (Figs. 4-6).

Regarding claim 4, Boys discloses a device wherein the cyclic pulse signal has a frequency from 0.1 kHz to 30 Mega hertz (col. 7, lines 39-50).

Regarding claim 5, Boys discloses a device wherein the pulse generator (602) is a pulse width modulation generator (Fig. 6, col. 7, lines 39-50) (pulse width modulation is a frequency modulation, so that the PWM generator (602) generates a pulse of number of frequency in a period of time for a number of cycles [refer to col. 7, lines 39-50]).

Regarding claim 6, Boys discloses a device wherein the switch (503) is a MOS FET (Fig. 5, col. 6, line 61).

Regarding claim 8, the method of lighting at least one light emitting diode (405) (Figs. 4-6) to be supplied with predefined minimum forward voltage and maximum current, comprising the steps of:

supplying a forward voltage to the light emitting diode (col. 6, lines 33-35). To be more specific, the supply voltage from the rectifier (403) (making DC voltage) is applied to the LED through the output of element (502).

generating a cyclic pulse signal (by generator (602) as shown in Fig. 6, col. 7, lines 39-40) having predefined on-times and off-times for controlling a switch (503) to be turned on during said on-times to short-circuit (col. 6, lines 61-63) the light emitting diode and turned off during said off-times,

charging an inductive device (401) when the switch (503) is turned on (Figs. 5 and 6 shown that switch (503) is used to control the current/voltage flowing of inductive device (501)),

increasing the forward voltage over the light emitting diode when the switch is turned off so that said forward voltage gets higher than the minimum forward voltage (when the switch 503 is in OFF stated, the current flowing through the light emitting diode is increased. As a result, the forward voltage over the light emitting diode is increased. It is noted that a forward voltage (in a diode) is just a voltage that results from the current in the forward direction, then when the current (I) is increased, the voltage would follows, V=IR).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boys (U.S. Patent 6,459,218 B2) in view of Weindorf (U.S. Patent 6,690,121).

Regarding claim 7, Boys discloses a battery-supplied apparatus comprising a device as claimed. Boys is silent about the display. However, as evidenced by Weindorf, providing a display (display panel 104) (Fig. 1, col. 3, line 52) is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide the apparatus of Boys with the display panel as taught by Weindorf in order to connect with the electrical device or control circuitry for controlling brightness of the illumination.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference(s) Marinus (U.S. Patent 5,041,956) is cited.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy T Vu whose telephone number is (571) 272-1832. The examiner can normally be reached on M - F: 9 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on (571) 272-1662. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.

Jimmy Vu

February 15, 2007

Douglas W. Owens 2/26/07

DOUGLAS W. OWENS
SUPERVISORY PATENT EXAMINER